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Subject: Arco/BP Proposed Source Control Action
Date: 03/13/2007 09:28 AM

The purpose of this e-mail is to give you all a head's-up that there will be a comment period April 1-30, 2007 for Arco/BP's (BP) proposed source control action at their facility. The primary documents available for review include: the Revised Basis of Design Report (3/07; consisting of text, figures, and tables), the 60% Design Report (3/07; consisting of engineering specifications), and the Environmental Control Plan (3/07; including water quality monitoring).

Site Description

The 14-acre subject site (Terminal 22T) is located at 9930 W St. Helens Road, Portland, Oregon, on the west bank of the Willamette River at approximately river mile 4.9 in the Portland Harbor. It was originally developed as a bulk petroleum terminal in 1932 and currently consists of 27 above ground storage tanks, a truck loading rack, and several buildings and warehouses.

Historical releases of petroleum product (sources unknown, but likely include the truck loading rack) and a diesel product pipeline leak in 1991 between the northern tank farm and the truck loading rack. Such releases have resulted in an accumulation of liquid phase hydrocarbons (LPH) consisting of relatively weathered and un-weathered diesel product that floats on groundwater.

Existing Source Control Measures

An 800-foot concrete seawall was installed along the entire frontage adjacent to the Willamette River in the 1940's, and it extends down to approximately 1.6 feet msl. A storm water collection system and two oil/water separators were installed in 1968, and additional storm drainage systems and four interceptor wells on the landward side of the seawall were installed in 1971. Two additional interceptor wells were constructed in 1994. Product skimmers operated in the six interceptor wells. Extracted product and groundwater are treated in an on site oil/water separator and carbon unit and discharged to the river under an NPDES permit. Between 1997 and 2003, about 7,800 gallons/year of petroleum product have been recovered from the subsurface. Recovery rates improved using new wells and mobile pumping systems: about 13,000 gallons of product were recovered in 2003. Product recovery has also been conducted from two wells located between the seawall and the truck loading rack.

In 2003 BP proposed to DEQ & EPA, replacing and enhancing their existing hydraulic containment system (i.e., pump and treat) at their Terminal 22T site. The existing seawall and groundwater/LNAPL pumping system is largely effective in containing liquid phase petroleum product from upland historic releases, but periodic, relatively small volumes of contaminated groundwater/LNAPL have by-passed the control & have been released to the river under certain hydrologic conditions. In 2004 BP enhanced their existing hydraulic containment system with the installation of a number of new extraction wells. The enhanced source control efforts have been effectively operating since early-2005.

Proposal

BP recently advised us that the existing concrete seawall/revetment (which was installed years ago for geotech/stability reasons, not source control) is failing; needs to be removed; & a new seawall needs to be constructed. BP proposed that a sheetpile wall be installed along their entire shoreline for slope stability. This proposed sheetpile wall would act as the new seawall. BP proposed to do a riverward sediment removal during the demolition of the existing seawall/revetment, if the extent of contaminated

sediment was limited to the beach & near shore area (i.e., sediment contamination did not extend beyond the nearshore very far into the river). BP completed an in-water, sediment investigation in summer '06 to determine the extent of sediment contamination. BP says the results indicate that TPH contamination in sediment is largely restricted to the nearshore area.

The basics of BP's proposal are:

- Installation of new sheet pile wall to ensure slope stability (spring/summer '07)
- Removal of old concrete seawall and revetment (summer/fall '07)
- Removal of 16,000cy of beach and near-shore soil/sediment (summer/fall '07)

During a 12/7/06 BP/DEQ/EPA meeting to discuss BP's most recent source control proposal, BP submitted their 12/06 "*Basis of Design (BOD) Report- Revetment Source Control Measure*" to DEQ and EPA. This document was revised in 3/07 to incorporate DEQ and EPA comments.

DEQ/EPA roles

DEQ and EPA agreed that if the in-water contamination was restricted to the nearshore area that BP's proposal could be completed under DEQ's source control oversight rather than splitting the project into an upland source control and in-water early action. Both EPA and DEQ agreed with BP's conclusion that contamination riverward of the seawall is restricted to the near-shore area. Kristine Koch is EPA's lead on the project.

Next Steps

BP has a very ambitious project schedule and wants to start construction this year. DEQ presented this proposal to the Portland Harbor Community Advisory Group in 1/07 and will request review/comments from them and the public during the 4/07 public comment period.

If you would like to review the BOD Report or any other back-up documents during the 4/07 review period, please contact me or DEQ's BP project Project Manager, Tom Gainer (503.229.5326).

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